

ABSTRACT OF THE DISCLOSURE

The invention provides a rotor for a turbo/drag vacuum pump, the rotor comprising an upstream rotor segment of the turbine type made of metal or alloy, and a downstream rotor segment of Holweck type made of composite material. The downstream segment of the rotor has a reinforcing structure made of long fibers that are distributed in a manner that varies as a function of the section under consideration : in the annular connection region connected to the upstream segment of the rotor, the fibers are inclined and/or spaced apart in order to conserve sufficient flexibility for the composite material to enable it to deform so as to track deformation of the metal of the upstream rotor segment while it is in operation ; in contrast, the fibers are close together and form turns that touch in the downstream region of the skirt, thereby guaranteeing greater stiffness in order to withstand the mechanical stresses that occur during high-speed rotation of the rotor in operation. It is thus possible to make a rotor with a Holweck type skirt that is of greater diameter, thereby improving the properties of the pump.

Figure 5